ABSTRACT

A method of determining a phase between a first signal and a second signal is provided. The first signal and the second signal correspond to signal transmissions between a first device and a second device. The second device periodically moves along a translational axis with respect to the first device in a first direction or a second direction. The method includes assigning a positive or negative value to each of a plurality of positive and negative zero crossings of the first signal. The method also includes counting a numerator and a denominator counter for a predetermined interval. The method also includes calculating a raw phase between the first signal and the second signal by dividing a value of the numerator by a corresponding value of the denominator after the predetermined interval.